Only Toxic Beverages Will Lead To Higher Blood Glucose Levels After A Meal

By Joachim Bartoll | May. 13th, 2025

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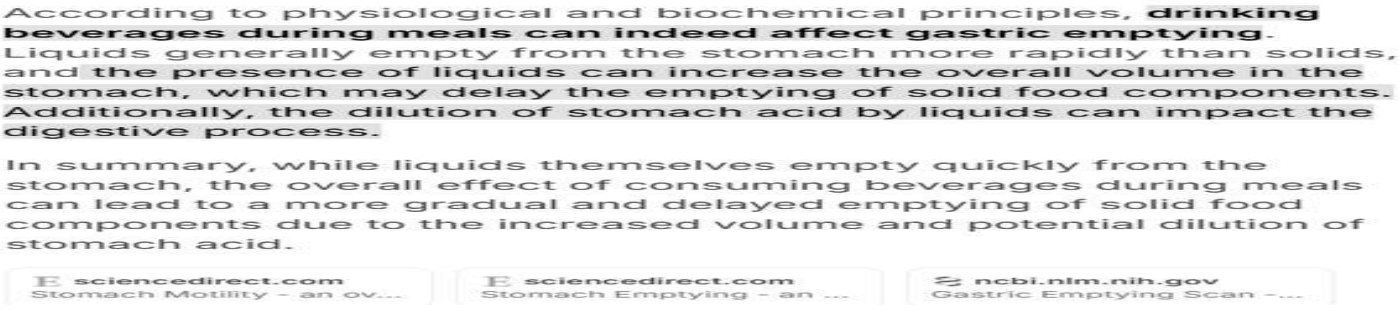
Today we return to the very mediocre panel of reviewers at Examine.com and their summary of a recent study on what the very unintelligent "researchers" call "noncaloric beverages" and their impact on blood glucose levels after a meal. Anyone who understands the basics of physiology knows that diluting a meal with liquids can affect gastric emptying differently depending on the form of the meal. Usually it slows down the rate at which solids clear from the stomach as the liquids are cleared first, delaying the emptying of solids and it adds to the volume of the content in the stomach which also dilutes the stomach acid, making for a quicker emptying of the liquids but a slower emptying of the solids. However, this has nothing to do with blood glucose peak levels, which we will get to.


According to physiological and biochemical principles, drinking beverages during meals can indeed affect gastric emptying. Liquids generally empty from the stomach more rapidly than solids, and the presence of liquids can increase the overall volume in the stomach, which may delay the emptying of solid food components. Additionally, the dilution of stomach acid by liquids can impact the digestive process.
In summary, while liquids themselves empty quickly from the stomach, the overall effect of consuming beverages during meals can lead to a more gradual and delayed emptying of solid food components due to the increased volume and potential dilution of stomach acid.
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So, let's see what the sad state of "modern research" concluded this time...

In this randomized crossover study in 12 women in Japan, the researchers added green tea to a rice meal to measure any variations in postprandial glucose levels compared to the same meal without any beverage.

> *"The participants (ages 21 to 22) had no known metabolic, cardiovascular, or gastrointestinal disorders.*
>
> *All of the participants consumed 3 meals (on separate mornings) which included 150 grams of rice each. The rice was served alone (no beverage), alongside 200 milliliters of green tea, or partially mixed with green tea (100 milliliters added to rice, 100 milliliters served separately)."*

These researchers are complete morons! This is so laughable it's not even funny considering how stupid it is and the fact that they label themselves as researchers and belong to some indoctrinated institution who funded this mess.

For what they call a "non-caloric beverage," as in a beverage that has no macronutrients, these imbeciles chose to use green tea — one of the most toxic beverages available. A beverage made from leaves that is filled with toxins such as polyphenols, catechins, caffeine, and other volatile compounds. What could possibly go wrong? What a bunch of morons!

Green tea contains polyphenols and catechins, which are defense chemicals. It also includes caffeine, which can trigger an acute fight-or-flight stress response due to its stimulant effects. Additionally, green tea may contain other volatile compounds that could pose a toxic threat if consumed in large amounts. 2 3 4
cancerresearchuk.org
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10 Reasons Green Tea Is...
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10 Evidence-Based Ben...
A cup of green tea contains caffeine and other volatile compounds that can pose a toxic threat and trigger an acute fight-or-flight stress response. 2 3
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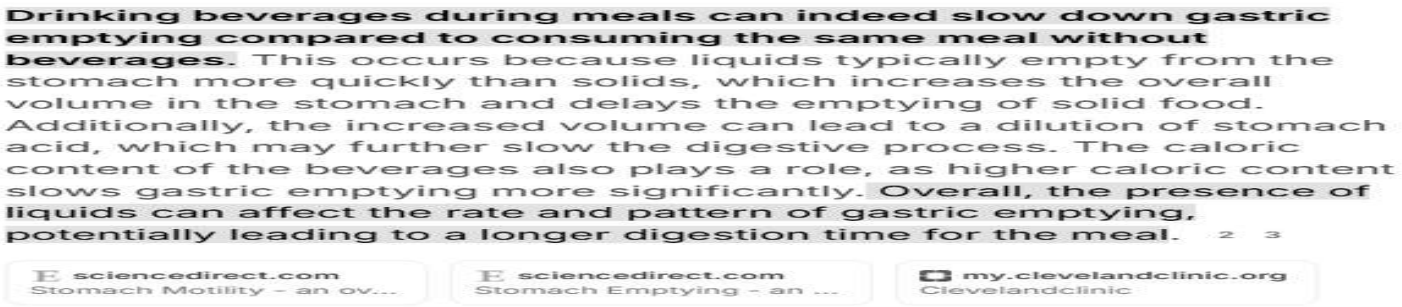
en.wikipedia.org
Caffeine - Wikipedia

> *"Both of the tea meals (separate or mixed) resulted in faster gastric (stomach) emptying compared to rice alone."*

I highly doubt that with the rice served with the beverage separately. In that case, where you have a solid meal and drink a beverage separately during the meal, the initial gastric emptying will be sped-up if you start drinking a little at the beginning of the meal, as the beverage will enter the small intestine almost immediately. But the solids will be emptied a bit slower due to this, actually extending the time it takes for complete gastric emptying.


Drinking beverages during meals can indeed slow down gastric emptying compared to consuming the same meal without beverages. This occurs because liquids typically empty from the stomach more quickly than solids, which increases the overall volume in the stomach and delays the emptying of solid food. Additionally, the increased volume can lead to a dilution of stomach acid, which may further slow the digestive process. The caloric content of the beverages also plays a role, as higher caloric content slows gastric emptying more significantly. Overall, the presence of liquids can affect the rate and pattern of gastric emptying, potentially leading to a longer digestion time for the meal. 2 3
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In the other meal that was mixed with the green tea, making it more of a liquid meal, gastric emptying will likely be increased a little as there are no interruptions and the meal is still a complete "solid" although diluted a bit as the solids are mixed with liquid.

According to biology, physiology, and biochemistry, a liquid meal generally has a faster gastric emptying rate compared to an identical solid meal. 5 6 This is because the liquid fraction of a meal tends to empty more quickly from the stomach, while solid pieces are retained for longer periods. 6
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You need to be precise when presenting and explaining differences between approaches or people will think that drinking beverages with their meals will increase gastric emptying, which is not true. However, a liquid meal can be emptied a bit faster.

> *"The mixed meal also increased peak glucose levels compared to rice alone. A trend towards higher peak glucose levels was observed after rice with tea*

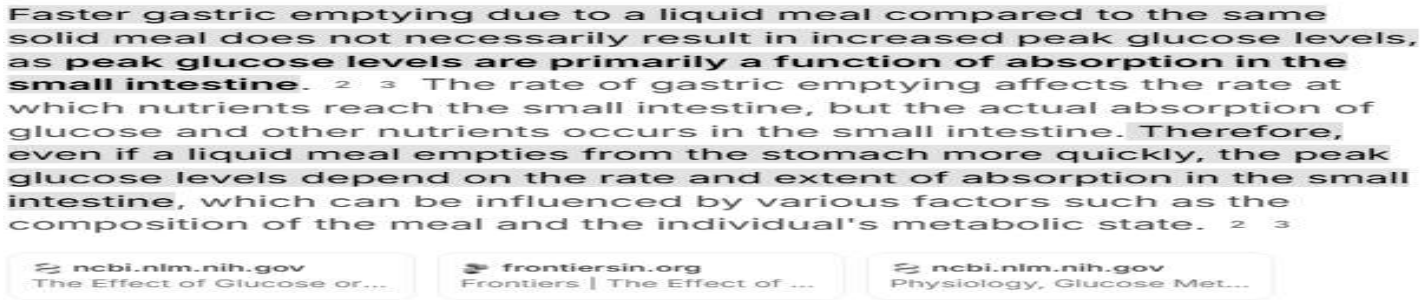
> *compared to rice alone, but the difference was not statistically significant (p-value = 0.097).”*

I’ll explain this in a second. But first, let’s see what the monkeys at Examine.com have to say.

> *“Although this study had a small sample size (and caution is appropriate), the results suggest that adding noncaloric beverages to a meal can hasten gastric emptying and increase peak glucose levels, effectively increasing the glycemic index.”*

No, adding beverages to a meal does not hasten gastric emptying as the liquid will simply pass the solids and enter the small intestine separately. A meal that has been mixed with a beverage, as in a more “liquid meal,” as in being one component, can however hasten gastric emptying. That’s a big and important difference.

But with that being said, the rate of gastric emptying has nothing to do with peak glucose levels. Again, this is basic physiology. The gastric emptying rate only affects how quickly the contents of the stomach enters the small intestine. As for actual nutrient uptake, as in this case carbohydrates that are turned into glucose, is something that happens in the small intestine and that is entirely separated from the previous step of gastric emptying. And nutrient absorption is limited to a specific rate that depends on the content of the meal.


Faster gastric emptying due to a liquid meal compared to the same solid meal does not necessarily result in increased peak glucose levels, as peak glucose levels are primarily a function of absorption in the small intestine. 2 3 The rate of gastric emptying affects the rate at which nutrients reach the small intestine, but the actual absorption of glucose and other nutrients occurs in the small intestine. Therefore, even if a liquid meal empties from the stomach more quickly, the peak glucose levels depend on the rate and extent of absorption in the small intestine, which can be influenced by various factors such as the composition of the meal and the individual's metabolic state. 2 3
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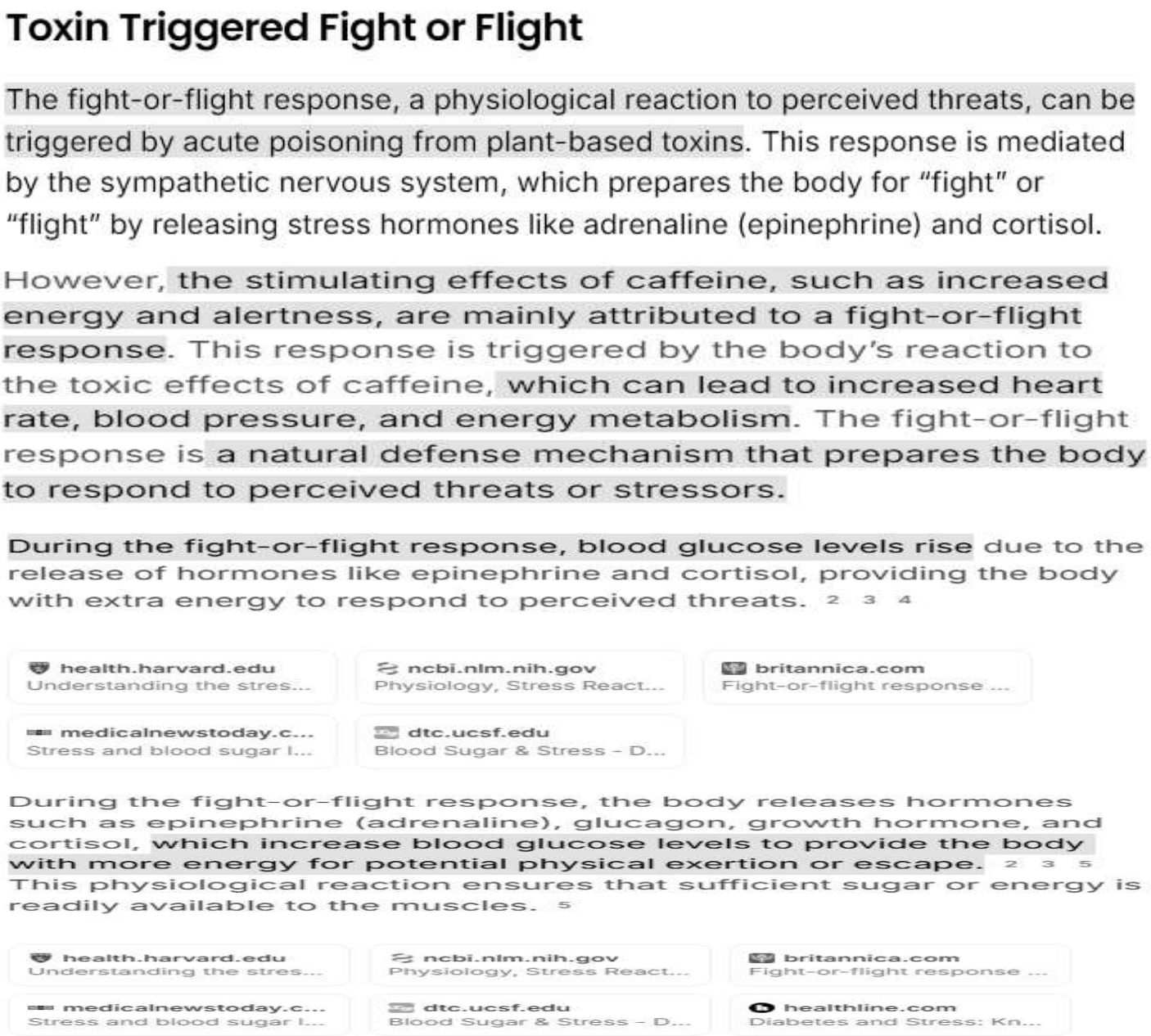
In this case, the meal was identical, it was simply toxic slave food, as in rice. However, the imbeciles added a highly toxic beverage to that meal, as in green tea. And as you know, any kind of toxin will induce a stress response, and even more so when it's a multitude of toxins in high concentrations, such as in green tea.

And yes, a stress response, especially when there are a lot of defense chemicals and caffeine involved will put the body into a fight-or-flight mode. And what happens during such a stress response? Yes, glucose levels increase to give you energy to avoid the danger.


Toxin Triggered Fight or Flight
The fight-or-flight response, a physiological reaction to perceived threats, can be triggered by acute poisoning from plant-based toxins. This response is mediated by the sympathetic nervous system, which prepares the body for "fight" or "flight" by releasing stress hormones like adrenaline (epinephrine) and cortisol.
However, the stimulating effects of caffeine, such as increased energy and alertness, are mainly attributed to a fight-or-flight response. This response is triggered by the body's reaction to the toxic effects of caffeine, which can lead to increased heart rate, blood pressure, and energy metabolism. The fight-or-flight response is a natural defense mechanism that prepares the body to respond to perceived threats or stressors.
During the fight-or-flight response, blood glucose levels rise due to the release of hormones like epinephrine and cortisol, providing the body with extra energy to respond to perceived threats. 2 3 4
health.harvard.edu
Understanding the stres...
ncbi.nlm.nih.gov
Physiology, Stress React...
britannica.com
Fight-or-flight response ...
medicalnewstoday.c...
Stress and blood sugar l...
dtc.ucsf.edu
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During the fight-or-flight response, the body releases hormones such as epinephrine (adrenaline), glucagon, growth hormone, and cortisol, which increase blood glucose levels to provide the body with more energy for potential physical exertion or escape. 2 3 5 This physiological reaction ensures that sufficient sugar or energy is readily available to the muscles. 5
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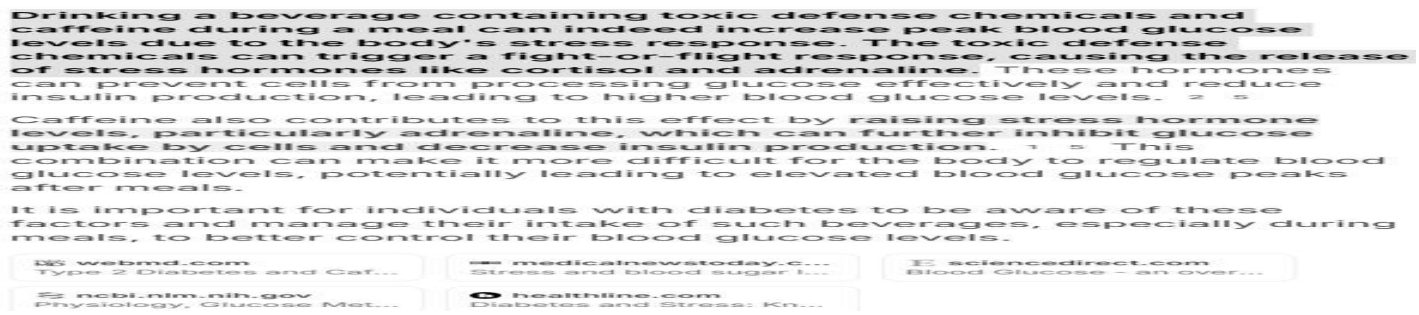
Now, simply sipping on this toxic beverage during a meal will only result in small doses of toxins reaching the small intestine at various infrequent intervals, resulting in a much smaller response. However, blending that toxic tea with the food and consuming it as a liquid meal will both sped-up gastric emptying and supply a steady stream of toxins to the small intestine, resulting in a much larger stress response.

That is what happened. And this blood glucose increase is well-established within many fields as it can be detrimental to diabetics if they consume toxic and caffeinated beverages during meals. And that is why this study is extremely retarded. It has nothing to do with adding "non-caloric" beverages to a meal, as simply drinking water, carbonated water, or a diet soda would not pose any toxic threat. However, drinking green tea, coffee, or a caffeinated beverage will cause a stress response, and even more so if you drink most of it at the beginning of the meal which would be similar to a more "liquid meal."


Drinking a beverage containing toxic defense chemicals and caffeine during a meal can indeed increase peak blood glucose levels due to the body's stress response. The toxic defense chemicals can trigger a fight-or-flight response, causing the release of stress hormones like cortisol and adrenaline. These hormones can prevent cells from processing glucose effectively and reduce insulin production, leading to higher blood glucose levels.

Caffeine also contributes to this effect by raising stress hormone levels, particularly adrenaline, which can further inhibit glucose uptake by cells and decrease insulin production. This combination can make it more difficult for the body to regulate blood glucose levels, potentially leading to elevated blood glucose peaks after meals.

It is important for individuals with diabetes to be aware of these factors and manage their intake of such beverages, especially during meals, to better control their blood glucose levels.

webmd.com Type 2 Diabetes and Caf...
medicalnewstoday.c... Stress and blood sugar l...
sciencedirect.com Blood Glucose - an overv...
ncbi.nlm.nih.gov Physiology, Glucose Met...
healthline.com Diabetes and Stress: Kn...

So, Examine's conclusion that "*adding noncaloric beverages to a meal can hasten gastric emptying and increase peak glucose levels, effectively increasing the glycemic index*," is complete misinformation and not supported by physiology or biochemistry, it simply not how our body works.

Again, adding a non-toxic and "non-caloric" beverage will likely slow down gastric emptying, and it will have zero effects on blood glucose. However, adding a toxic "non-caloric" beverage can increase peak glucose levels, but not due to gastric emptying, but due to the toxic effect inflicting a stress response.

Again, we've had another example of how modern science is at the level of toddlers fitting blocks into corresponding holes and leaving it at that, moving onto the next "challenge" without a second thought or even reflecting on what actually happened or what caused the results they observed. Embarrassing.

If you need help with any kind of health problems or transitioning from your current way of eating to our natural species-appropriate, species-specific way of eating, I'm available for both coaching and consultation.

Coaching and Consultation

And if you found the article and my insights helpful and enjoy my daily free information, please consider donating to help pay the webhosting bills and keep the site running. And if you're interested in discussing and sharing information with likeminded people, consider joining our uncensored community at Ungovernable.se. Thank you!

If you wish to support my work

https://bartoll.se/2025/05/toxic-beverages-blood-glucose/